

SPECIFICATIONS

- Number of memorizable rhythms: 32 kinds (16 preset rhythms, 16 programmable rhythms)
- Number of steps: 1 ~ 16 steps/1 ~ 12 steps
- Songs: 128 measures x 2 songs (continuous: max 128 measures)
- Sound sources: Bass Drum, Snare Drum, Cymbal, Closed Hi-hat, Open Hi-hat, Hand Clap, Accent
- Tempo control range: ♩ = 45 ~ 300
- Jacks: DC 9V for AC adapter (PSA series), Output (Play Bus), Headphones, Accent trigger out (+6 V, 10 ms pulse)
- Power: UM-3 x 4, AC adapter (PSA series)
- Dimensions: 190 (W) x 30 (H) x 110 (D) mm (7.48" x 1.18" x 4.33")
- Weight: 450 g (1 lb.) with batteries
- Accessories: UM-3 dry battery (BR-3) x 4, Original carrying case

OPTIONS

A Headphone Amp with Built-in Special Effects-Perfect for Connection with the DR-110 at Jam Session

HA-5 Play Bus HEADPHONE AMP

The Bilateral Bus Line (patent pending) allows single cord connection of the HA-5 with the DR-110 so you can play music at any time to the rhythms created by the DR-110. The HA-5 provides you with outstanding effects: a stereo chorus with both Rate and Depth controls, a unique BOSS overdrive, and a 35-ms stereo short delay. Bass and Treble controls are also provided. The HA-5 comes complete with a belt clip so you can wear it around your waist. And AC/DC operation allows you to use the HA-5 anywhere, anytime.

SPECIFICATIONS

- Power: 9 V (UM-2 x 6), AC adapter (PSA series)
- Jacks: MIC in, Phones A, B, P-BUS, Input, PSA adapter jack
- Switches: Power, Normal/Overdrive, Chorus/Short delay, BUS mute
- Controls: Gain/Drive, Master volume, Bass, Treble, MIC volume, Chorus rate, Chorus depth
- Dimensions: 90(W) x 120(H) x 42(D) mm (3.54" x 4.72" x 1.65")
- Weight: 350 g (0.77 lb.)

Ultra-light, Compact Headphones with Microphone

RH-11M STEREO HEADPHONES WITH MICROPHONE

Ultra-light headphones with a microphone give wearing comfort you never tire of. The microswitch is located in the boom holder. It turns off when the boom is in the upper or lower position, so the RH-11M's microphone doesn't pick up undesired sound.

SPECIFICATIONS

- Type: Dynamic open air headphones, Dynamic microphone
- Weight: 69 g (2.43 oz.) without cord • Total weight: 90 g (3.17 oz.) with cord and 2 plugs



*Specifications and appearance subject to change without notice.

BOSS
sound innovator

DR-110

Dr. Rhythm GRAPHIC



BOSS
a group of Roland

Preset Programmable Rhythm Machine

DR-110 Dr. Rhythm GRAPHIC

- Two songs, each up to 128 measures, can be programmed by combining 32 rhythm patterns, 16 preset rhythm patterns and 16 programmable rhythm patterns.
- There are two rhythm-pattern writing modes — the real-time writing mode using tap keys and the step writing mode.
- You can confirm the rhythm pattern while writing it on the liquid-crystal display. Modes, rhythm number, and other data are also displayed for rapid and precise writing and recall.
- Any sound source is playable by tapping tap key. The DR-110 can also be used as a percussion instrument.
- The high sound quality of each sound source is comparable to that of a much more expensive model. This includes Cymbal and, for the first time in this price class, Hand Clap.
- Turning the balance control knob counter-clockwise enhances the drum sounds. Turning it clockwise enhances cymbal sounds.



- You can select 4-time or 3-time signature-oriented rhythms by selecting the step number.
- The DR-110 can be connected to the HA-5 headphone amplifier using the Play Bus (output) jack. Enjoy session with them.
- A convenient Accent Trigger output jack can be used to control a synthesizer.
- The DR-110 is light and compact and can be used anywhere due to the AC/DC operation.
- Battery back-up of the memory when the power is off.



Step Writing Procedure

- 1 Hold the **SHIFT** key down and push the **1** key. The display will show **1**, and you can write a rhythm pattern in "1" of bank A in the step writing mode.
- 2 Select the bank and rhythm number where the rhythm pattern is to be written.
 - Select bank A or B using the **A/B** key (bank C and D hold preset rhythms).
 - Choose the desired rhythm number using the **1**, **2**, **3**, **4**, **5**, **6**, **7** or **8** key.
- 3 Hold the **SHIFT** key down and push the **7** key to clear a rhythm pattern which has already been written in the memory.
- 4 Hold the **SHIFT** key down and push the **6** key to select step number 12 or 16. A triangle will appear above the selected number.

∇ 12 = 12 steps ∇ 16 = 16 steps
- 5 Push the **ACCENT**, **BASS DRUM**, **SNARE DRUM**, **O. HIHAT**, **C. HIHAT**, **CYMBAL** or **HAND CLAP** key to select the sound source to be written. The dot **•** will blink at the selected sound source.
 - Accent, Cymbal, and Hand Clap are indicated in the same place on the display. Their indication changes as shown below.
- 6 Push the **START** key to write the selected sound source in the step (**•** is indicated), or push the **STOP** key to skip the step (nothing is indicated). The step then shifts to the next. Repeat procedure 5 and 6 until the rhythm pattern is completed.
- 7 When the writing is finished, hold the **SHIFT** key down, and push the **2** key to change the step writing mode to the pattern playing mode. The display will show **1**.
- 8 Push the **START** key to play the rhythm pattern and push the **STOP** key to stop it.

Tap Writing Procedure

- 1 Hold the **SHIFT** key down and push the **5** key. The display will show **1**, and you can write a rhythm pattern in "1" of bank A in the tap writing mode.
- 2 Select the bank and the rhythm number where a rhythm pattern is to be written (just as in the step writing mode).
- 3 Hold the **SHIFT** key down and push the **7** key to clear a rhythm pattern which has already been written in the memory.
- 4 Hold the **SHIFT** key and push the **6** key to select the step number.
- 5 Write the rhythm below for use as a metronome rhythm.
 - Hold the **SHIFT** key down and push the **4** key to set the step writing mode.
 - Write the Closed Hi-hat in step 1, 5, 9, and 13, and the Open Hi-hat in step 1.
- 6 Hold the **SHIFT** key down and push the **5** key to reset the tap writing mode. Then push the **START** key to start the metronome rhythm.
- 7 Tap the **ACCENT**, **BASS DRUM**, **SNARE DRUM**, **O. HIHAT**, **C. HIHAT**, **CYMBAL** or **HAND CLAP** key according to the metronome rhythm you desire. The dot **•** will be indicated in the tapped step.
 - The only one of three sound sources (Accent, Cymbal, and Hand Clap) is indicated, but the other two can also be written.

If you make a mistake, hold the **SHIFT** key down and push the button you pushed by mistake (for example the **4** key) to clear it.
- 8 When the writing is finished, push the **STOP** key.
- 9 Hold the **SHIFT** key down and push the **2** key to change the tap writing mode to the pattern playing mode.
- 10 Push the **START** key to play the rhythm pattern and push the **STOP** key to stop it.

Song Writing Procedure

- 1 Hold the **SHIFT** key down and push the **3** key. The display will show **1**. This is the song writing mode.
- 2 Hold the **SHIFT** key down and push the **2** key to select song number I or II where the rhythm patterns are to be written.

Song I $\Rightarrow$ **888** Song II $\Rightarrow$ **888**
- 3 Hold the **SHIFT** key down and push the **8** key. The display will then show **001**.
- 4 Push the **START** key to start the rhythm and choose the rhythm pattern you want to write using the **1**, **2**, **3**, **4**, **5**, **6**, **7** and **8** keys.
- 5 Push the **WRITE STEP** key to write the rhythm pattern chosen. The measure will then change to the next. Repeat procedure 4 and 5 to continue song writing. If you want to write the same pattern repeatedly, push only the **WRITE STEP** key.
- 6 When you have chosen the last rhythm pattern, push the **STOP** and **WRITE STEP** keys.
- 7 Push the **STOP** key to complete the song writing of Song I.
- 8 Hold the **SHIFT** key down and push the **1** key. The display will show **1**.
- 9 Hold the **SHIFT** key down and push the **2** key to reset to the first measure.
- 10 Push the **START** key to start the rhythm and push the **STOP** key to stop it.